

Entrepreneurial Skill Acquisition in Education for Effective Instructional Delivery: Basics for Adobe Flash

Gana, C.S; Oboh, C.O; A. E Umeh & Gana, H. S

School of Technology Education

Department of Science Education

Federal University of Technology, Minna Niger State

E-mail: lusaworks@gmail.com

Abstract

The high level of unemployment of graduates from different higher institution in the country today is worrisome. This calls for overhauling of the nation educational system to create room for self-reliance. This is very crucial because entrepreneurship enhances self-reliance or self-employment which can be realize through the knowledge of ICT (Adobe Flash). There is need to produce teaching packages that will boost the educational sector and to provide an entrepreneurial skills to both teachers and learners so as to equip them with the task ahead which ICT and technology is posing in the 21st century. Technological advancement which is related to the computer knowledge/skills and abilities have been of paramount importance in our educational system and society today. Computer technology has become an important and effective tool in delivering information to the learners and the society at large. This advance technology also plays an important role in helping teachers to deliver their instructions to students effectively. The focus of this article is to discuss the basic steps to follow so as to equip both teachers and students to acquire the skills of producing teaching packages in various field of endeavor and to support work-force development in education. Therefore the Meaning of MICROMEDIA and its various functions were highlighted and how to use the Flash Basic step by step. An adequate recommendation such as reviewing the education curriculum to accommodate full applicability or practical skill acquisition in production of learning packages for all levels of education was made among others.

Introduction

The importance of entrepreneurship inclusion in any country's educational system can never be over emphasized. Students know that they have to build a wide range of interdisciplinary skills that give them maximum flexibility and preparation for the future. Therefore the emergence of Information computer technology (ICT) education and increasing interest of students in job – related courses and the employers' of labours emphasis on skills acquisition before job placement have generated a need for rapid expansion of employment-related education in Nigeria, especially now that Nigeria is undergoing industrial and technological development. The pertinent question of concern includes: Is preparing youths for employment through secondary school level an acceptable goal of public secondary education? Or whether the employers of labour should accept the responsibility for training directly? The answer is that the society has long accepted preparation for employment in the various occupations as a valid goal of public schools (FRN,2004). One of the philosophies of occupational education is pragmatism which stresses skill acquisition from secondary to tertiary level of education. For this to be achieved, a more serious training and exposure are desired so as to meet the present trend of science education and technological development. Nigerian government had tried to divert a lot of the unemployed youths to areas where they could be self-employed by establishing a National Directorate of Employment and Youth Employment to help the youths acquire saleable skills. National Directorate of

Employment and Youths Empowerment Scheme have much to offer, but the science education youths need to be trained or given some basic skills on how to be better programmer than their ancestors, if youths are to serve themselves and the nation in their fullest capacity. This posture must be adopted because more youths are demanding education which prepares them to be self-employed, for jobs and because the society is more willing to support education which has career preparation as its goal. Another question that addresses the future of ICT skill acquisition is, at what level should the ICT skills be taught? Having known that majority of the youths in Nigeria may not continue their formal education beyond secondary school, it is necessary to enforce the training for ICT skills acquisition at both the junior and senior secondary levels so that the youths may acquire at least the basic ICT skill experience before graduation. Preparation of adolescents and youths for the world of work is based on two major facts: the acquisition of knowledge about employment opportunities, requirements and trends; and the possession of skills and qualifications that are saleable in employment market. Based on this awareness, ICT skills acquisition in science education is the possession of relevant competencies needed in designing and developing instructional packages for effective delivery of instructions in education. Adobe Flash is an authoring tool that designers and developers use to create presentations, applications, and other content that enables user interaction. Adobe Flash projects can include simple animations, video content, complex presentations, applications, and everything in between. You can make media-rich Flash applications by including pictures, sound, video, and special effects. Flash is extremely well suited to creating content for delivery over the Internet because its files are very small. Flash achieves this through its extensive use of vector graphics.

A Flash document has four main parts:

- The Stage is where your graphics, videos, buttons, and so on appear during playback.
- The Timeline is where you tell Flash when you want the graphics and other elements of your project to appear. You also use the Timeline to specify the layering order of graphics on the Stage. Graphics in higher layers appear on top of graphics in lower layers.
- The Library panel is where Flash displays a list of the media elements in your Flash document.
- Action Script code allows you to add interactivity to the media elements in your document. For example, you can add code that causes a button to display a new image when the user clicks it. You can also use Action Script to add logic to your applications. Logic enables your application to behave in different ways depending on the user's actions or other conditions.

Functions of Flash

With the wide array of features in Flash, you can create many types of applications. The following are some examples of the kinds of applications Flash can generate:

Animations: These include banner ads, online greeting cards, cartoons, and so on. Many other types of Flash applications include animation elements as well.

Games: Many games are built with Flash. Games usually combine the animation capabilities of Flash with the logic capabilities of Action Script.

User interfaces: Many website designers use Flash to design user interfaces. The interfaces include simple navigation bars as well as much more complex interfaces.

Some Popular Applications Built Using Flash

Who wants to be a millionaire, MavisBecon Typing tutor, Hangaroo, Web adverts Banners, Some websites (Insight Nigeria,)

Similar softwares

Swish max ,Flash Basics

Flash Basics

The Macromedia Flash Basic 8 and Flash Professional 8 workspace consists of a Stage on which you place media objects, a Property inspector for organizing and modifying media assets, a Tools panel with tools for creating and modifying image content, and many other panels for accessing the wide range of functionality in Flash.

STEP 1: Using the Start page

Whenever Flash is running with no documents open, the Start page appears. The Start page provides easy access to frequently used actions. The Start page contains the following four areas:

- Open a Recent Item lets you open your most recent documents. You can also display the Open File dialog box by clicking the Open icon.
- Create new lists Flash file types, such as Flash documents and Action Script files. You can quickly create a new file by clicking the desired file type in the list.
- Create from Template lists the templates most commonly used to create new Flash documents. You can create a new file by clicking the desired template in the list.
- Extend links to the Macromedia Flash Exchange website, where you can download helper applications for Flash, Flash extensions, and related information.
- The Start page also offers quick access to Help resources.

STEP2: Using the Stage

The Stage is the rectangular area where you place graphic content, including vector art, text boxes, buttons, imported bitmap graphics or video clips, and so on when creating Flash documents. The Stage in the Flash authoring environment represents the rectangular space in Macromedia Flash Player or in a web browser window where your Flash document appears during playback. You can zoom in and out to change the view of the Stage as you work.

STEP3: Using the Timeline

The Timeline organizes and controls a document's content over time in layers and frames. Like films, Flash documents divide lengths of time into frames. Layers are like multiple film strips stacked on top of one another, each containing a different image that appears on the Stage. The major components of the Timeline are layers, frames, and the play head.

Layers in a document are listed in a column on the left side of the Timeline. Frames contained in each layer appear in a row to the right of the layer name. The Timeline header at the top of the Timeline indicates frame numbers. The play head indicates the current frame displayed on the Stage. As a Flash document plays, the play head moves from left to right through the Timeline.

The Timeline status display at the bottom of the Timeline indicates the selected frame number, the current frame rate, and the elapsed time to the current frame.

NOTE

When an animation is played, the actual frame rate is displayed; this may differ from the document's frame rate setting if the computer can't calculate and display the animation quickly enough.

You can change the way frames appear in the Timeline, as well as display thumbnails of frame content in the Timeline. The Timeline shows where animation occurs in a document, including frame-by-frame animation, twinned animation, and motion paths. Controls in the layers section of the Timeline let you hide, show, lock, or unlock layers, as well as display layer contents as outlines.

You can insert, delete, select, and move frames in the Timeline. You can also drag frames to a new location on the same layer or to a different layer.

STEP4: Using frames and key frames

A key frame is a frame in which you define a change to an object's properties for an animation or include Action Script code to control some aspect of your document. Flash can tween, or automatically fill in, the frames between key frames you define in order to produce fluid animations. Because key frames let you produce animation without drawing each individual frame, they make creating animation easier. You can easily change the length of a twinned animation by dragging a key frame in the Timeline. The order in which frames and key frames appear in the Timeline determines the order in which they are displayed in a Flash application. You can arrange key frames in the Timeline to edit the sequence of events in an animation.

Working with frames in the Timeline

In the Timeline, you work with frames and key frames, placing them in the order you want the objects in the frames to appear. You can change the length of a twinned animation by dragging a key frame in the Timeline.

You can perform the following modifications on frames or key frames:

- Insert, select, delete, and move frames or key frames
- Drag frames and key frames to a new location on the same layer or on a different layer
- Copy and paste frames and key frames
- Convert key frames to frames
- Drag an item from the Library panel onto the Stage to add the item to the current keyframe
- Using layers

Layers are like transparent sheets of acetate stacked on top of each other on the Stage. Layers help you organize the artwork in your document. You can draw and edit objects on one layer without affecting objects on another layer. Where there is nothing on a layer, you can see through it to the layers below.

To draw, paint, or otherwise modify a layer or folder, you select the layer in the Timeline to make it active. A pencil icon next to a layer or folder name in the Timeline indicates that the layer or folder is active. Only one layer can be active at a time (although more than one layer can be selected at a time).

When you create a new Flash document, it contains only one layer. You can add more layers to organize the artwork, animation, and other elements in your document. The

number of layers you can create is limited only by your computer's memory, and layers do not increase the file size of your published SWF file. Only the objects you place into layers add to the file size. You can also hide, lock, or rearrange layers.

You can also organize and manage layers by creating layer folders and placing layers in them. You can expand or collapse layer folders in the Timeline without affecting what you see on the Stage. It's a good idea to use separate layers or folders for sound files, Action Script, frame labels, and frame comments. This helps you find these items quickly when you need to edit them.

In addition, you can use special guide layers to make drawing and editing easier, and mask layers to help you create sophisticated effects.

STEP 5: About the main toolbar and edit bar

The menu bar at the top of the Flash application window displays menus with commands for controlling Flash functionality. The menus include File, Edit, View, Insert, Modify, Text, Commands, Control, Window, and Help.

The edit bar, at the top of the Timeline, contains controls and information for editing scenes and symbols, and for changing the magnification level of the Stage.

STEP 6: Using the grid, guides, and rulers

Flash can display rulers and guides that help you draw and lay out objects precisely. You can place guides in a document and snap objects to those guides, or turn on the grid and snap objects to it.

STEP 7: Using panels and the Property inspector

Flash offers many ways to customize the workspace to your needs. Using panels and the Property inspector, you can view, organize, and change media and other assets and their attributes. You can show, hide, and resize panels. You can also group panels together and save custom panel sets to make the workspace match your personal preferences. The Property inspector changes to reflect the tool or asset you are working with, giving you quick access to frequently used features

STEP 8: Importing Images

Still Image File Types You Can Import To Import a Still Image into Flash

1. Make sure the layer you want the image to be on is active.
2. Select File _ Import to Stage.
3. You can also import numbered sequences of still images. If you do this, the stills will be brought in as successive frames of the layer that is active.

The Library

1. If you can't see the Library panel then go to Window _ Library or /CTRL _ L. Your image file can be accessed in the Library. You can drag further copies of the image on to the Stage from the Library as well as being able to access information about your imported image.
2. The Library can also be used to organize your assets, that is, any files you have imported or symbols you have created. If you click on the Name column

- heading, the files will be shown in order of their names. The same will happen for Type if you click on that column heading.
3. You can use the UP and DOWN arrow keys to move up and down in the list of files.
 4. If you go to the Library Options menu and choose Edit, this command launches Fireworks or another image editing software package if you don't have Fireworks on your machine. If you select Edit With, you can choose which image editing program that you want to use.

Animation & Action script

Creating Animations

- . Tween.
- . Frame by frame.
- . Shape tween
- . guide

About Action Script and events

In Macromedia Flash Basic 8 and Macromedia Flash Professional 8, Action Script code is executed when an event occurs: for example, when a movie clip is loaded, when a key frame on the timeline is entered, or when the user clicks a button. Events can be triggered either by the user or by the system. Users click mouse buttons and press keys; the system triggers events when specific conditions are met or processes completed (the SWF file loads, the timeline reaches a certain frame, a graphic finishes downloading, and so on).

When an event occurs, you write an event handler to respond to the event with an action. Understanding when and where events occur will help you to determine how and where you will respond to the event with an action, and which ActionScript tools to use in each case.

Events can be grouped into a number of categories: mouse and keyboard events, which occur when a user interacts with your Flash application through the mouse and keyboard; clip events, which occur within movie clips; and frame events, which occur within frames on the timeline.

Mouse and keyboard events

A user interacting with your SWF file or application triggers mouse and keyboard events. For example, when the user rolls over a button, the Button.onRollOver or on(rollOver) event occurs; when the user clicks a button, the Button.onRelease event occurs; if a key on the keyboard is pressed, the on(keyPress) event occurs. You can write code on a frame or attach scripts to an instance to handle these events and add all the interactivity you desire.

Clip events

Within a movie clip, you may react to a number of clip events that are triggered when the user enters or exits the scene or interacts with the scene by using the mouse or keyboard. You might, for example, load an external SWF file or JPG image into the movie clip when the user enters the scene, or allow the user's mouse movements to reposition elements in the scene.

Frame events

On a main or movie clip timeline, a system event occurs when the play head enters a key frame--this is known as a frame event. Frame events are useful for triggering actions based on the passage of time (moving through the timeline) or for interacting with elements that are currently visible on the Stage. When you add a script to a key frame, it is executed when the key frame is reached during playback. A script attached to a frame is called a frame script.

One of the most common uses of frame scripts is to stop the playback when a certain key frame is reached. This is done with the stop () function. You select a key frame and then add the stop () function as a script element in the Actions panel.

When you've stopped the SWF file at a certain key frame, you need to take some action. You could, for example, use a frame script to dynamically update the value of a label, to manage the interaction of elements on the Stage, and so on.

Conclusion and Recommendation

The importance of computer technology in teaching and learning in various fields of education cannot be denied. Moreover, the internet becomes the paramount technological tool in conducting training or courses. The teachers and learners should learn how to adapt the technology. This will ensure educational programs are relevant to the society since the students will be hopefully, in the future, computer technology and computer-based technology becomes a common instructional medium for defining courses in various educational fields.

References

- Birgitta,H. (2006). *The focal easy guide to Macromedia Flash 8 new user sand professionals* ;USA :Linacre House, Jordan Hill ,Oxford OX2 8DP.Burlington,MA01803.
- Chris, G. (2011). Creating your first flash professional document <http://www.adobe.com/devnet/actionscript.html>.Retrived 5/12/2011
- Federal republic of Nigeria (2004). *National Policy on Education*. Abuja: federal ministry of information.
- Ile,N.M (2001). *Entrepreneurship Development*. The Nigeria perspective Umuahia Distinctive press
- Joseph, L. (2009) Flash basic. <http://www.macromedia.com/>.Retrived 5/12/2011
- Joseph, L. (2012). Creating symbols and adding animations <http://www.adobe.com/devnet/tutorials/flash/1>.Retrived 5/12/2011
- Keith, G. (2010). Action Script Basic. <http://www.adobe.com/devnet/flash.html>.Retrived 5/12/2011
- Usman,K.O&Iweka,S. (2013).*Mathematics Education and Entrepreneurship Development in Nigeria*. Proceedings of 50th Annual National Conference of Mathematical Association of Nigeria, 2-6september, 351-357.